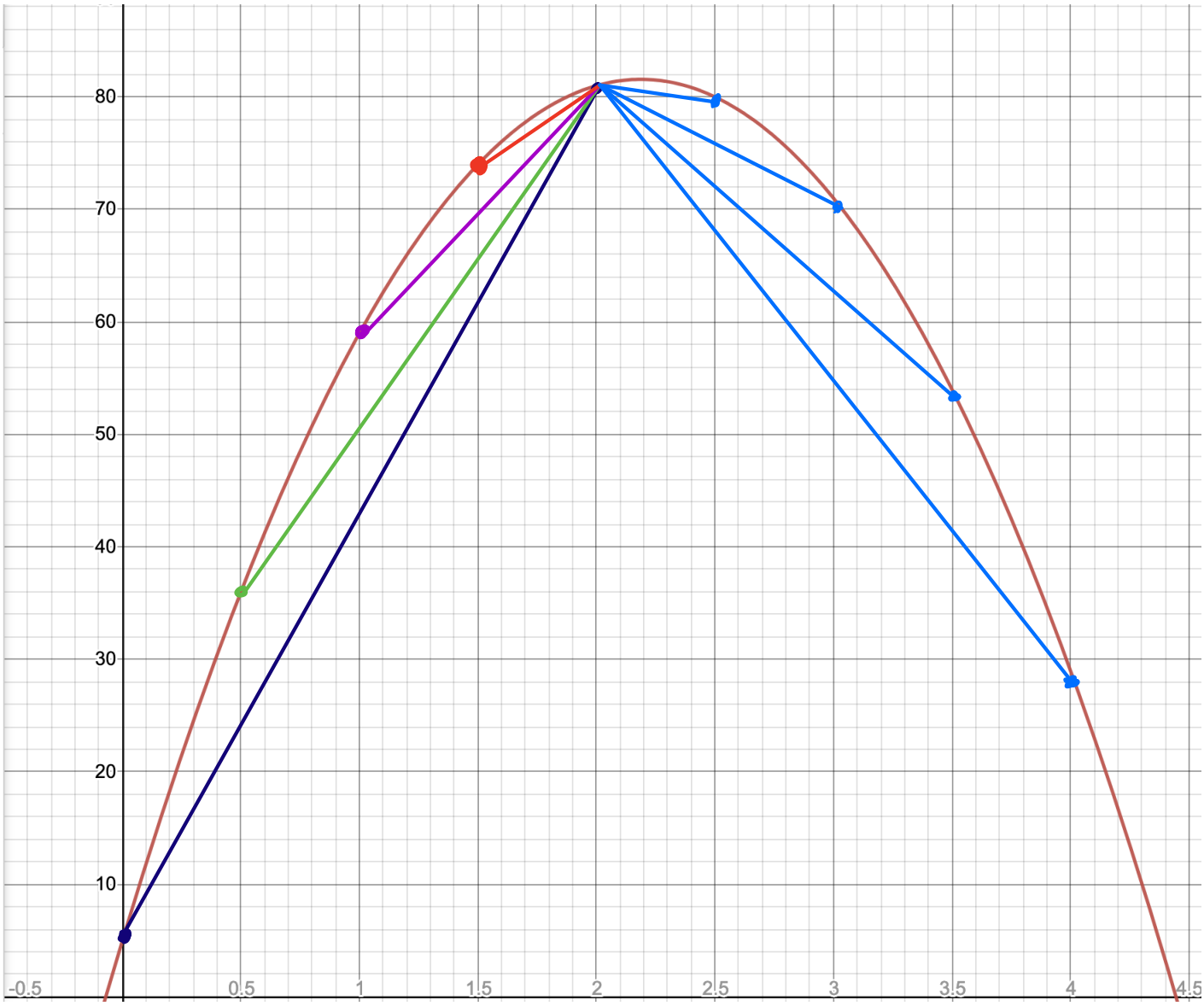

t (time, s)	0	0.5	1	1.5	2	2.5	3	3.5	4
$f(t) = y$ (height, ft)	5	36	59	74	81	80	71	54	29

t	0	0.5	1	1.5
Avg velocity from t to 2	38 ft/s	30 ft/s	22 ft/s	14 ft/s

t	2.5	3	3.5	4
Avg velocity from 2 to t	-2 ft/s	-10 ft/s	-18 ft/s	-26 ft/s

$\frac{81\text{ft} - 5\text{ft}}{2s - 0s} = \frac{76}{2} = 38\text{ ft/s}$

$\frac{81-36}{2-0.5} = \frac{45}{1.5} = 30\text{ ft/s}$

$\frac{81-59}{2-1} = \frac{22}{1} = 22\text{ ft/s}$

$\frac{81-74}{2-1.5} = \frac{7}{0.5} = 14\text{ ft/s}$

t	1.9	1.99	2	2.01	2.1
$f(t) = y$	80.24	80.9384	81	81.0584	81.44

$\frac{0.76}{0.1} = 7.6\text{ ft/s}$ $\frac{.0616}{0.01} = 6.1\text{ ft/s}$ $\frac{0.058}{0.01} = 5.8\text{ ft/s}$ $\frac{0.44}{0.1} = 4.4\text{ ft/s}$

Difference quotient

Instantaneous Velocity at $t = a$ $= \lim_{h \to 0} \frac{f(a+h) - f(a)}{h}$